CAP Detailed Cost Analysis

The purpose of a more detailed analysis is to provide Council a big picture understanding of the cost commitment associated with the CAP implementation and to help recognize the benefit associated with the costs.

As part of the Implementation Program (Chapter 5) the consultant provided Table 11 – CAP Implementation Matrix. The matrix indicates the projected GHG reduction, implementation timeframe, and generalized costs to the City the community for each main Reduction Measure. The Implementation Matrix generalizes a cost range for each Reduction Measure but does not evaluate each of the 130 Action Items. The CAP indicates a very broad numeric value to each cost range used in the analysis as follows:

Numeric Value ($)	Range
0	Minimal
1-25,000	Low
25,000-100,000	Low-Medium
100,000-200,000	Medium
200,000-500,000	Medium-High
500,000-1,000,000	High
Over 1,000,000	Very-High

As a resource to Council, staff has categorized and estimated the approximate cost for the Action Items. This more detailed cost analysis is a separate staff task and is not included in the CAP prepared by PMC.

The Action Items were organized by staff into groups based on similarities of cost (e.g. Big Ticket items) or similarity in the type of action (e.g. Education and Outreach or Intergovernmental Coordination).

- Big Ticket Items
- New Code or New Policy Considered
- Education and Outreach
- Existing Code or Policy
- Intergovernmental Coordination
- Changes to Internal City Operations
- Monitoring Costs

A complete list of Action Items by cost category is provided in Appendix A of this attachment.

At this time, the costs for these groups can only be estimated and would be refined based on future analysis of each action and scope of implementation. Unlike a budget, the costs cannot be totaled for a simple overall onetime cost or ongoing annual costs. The CAP is a multi-year program that was prepared with near-term (before 2015), mid-term (before 2020) and long-term (after 2020) time frames for the reduction measures. Since the CAP was delayed, the near-term time frame will be adjusted. Some actions may have one time study costs but the ongoing costs will be determined by how much effort or emphasis Council wants to put on each item such as on education and outreach measures.

Also, since the CAP can be flexible, the implementation time frames are not set in stone. Some mid-term items may jump to near-term depending on how aggressively the City wishes to implement the CAP and vice versa if some near-term items are delayed to pursue other priorities or must be delayed due to budget constraints.

Big Ticket Items

There are 25 Action Items in this category. These items warrant Council attention because of the potential high cost for implementation. The benefits of these big ticket items should be evaluated with consideration of budget priorities, potential outside funding and the amount of possible GHG reductions. Unlike the other Action Item categories where staff applied generalized assumptions, the estimated cost for each item in this category is based on a more focused cost analysis and is derived from current budget information and/or a review of similar programs. Nevertheless, many factors and assumptions affect the potential cost, including the scope of implementation that may be approved by the Council. These items range from $100,000 to over $1,000,000. Fifteen of the Action Items involve significant capital improvements or purchases.

Big Ticket Items typically require initial implementation and long-term maintenance or continuing annual costs such as tree maintenance. Some of the Big Ticket Items may be funded by grants, development fees or installed at developers' costs.

The following list highlights the notable "Big Ticket" items that exceed $1,000,000 (not including on-going maintenance costs.) All costs are preliminary estimates and could vary significantly depending on the level of commitment.

Notable Big Ticket Items:

Description	Action Items	Estimated Cost	Comments
Acquire park land to meet 5.5 acres per 1,000 residents	OS-1.1	$140M	Additional cost beyond developer provided Park Dedication Fees for 5.0 acres per 1,000 residents
Expand purple pipe system	WC-1.2 & 1.3	$110M	Likely funded through utility rates and some external funding
Fully fund the Bicycle and Pedestrian Improvement Plans and other related enhancements	CTO-1.4, 1.5, 1.6, 2.4 & 2.5	$11.3M	In addition to currently funded amount of $9.6M
Implement the Zero Waste Strategic Plan	LW-2.2	$2.6M annually	Potentially covered by rate increases
Continue to retrofit City-owned streetlights, park and parking lot lighting for energy efficiency	EC-1.1	$2.3M	Some grant funding available

The most beneficial strategy in the CAP is to provide a sustainable energy portfolio. Potentially this is a Big Ticket cost item. The CAP identifies that significantly shifting energy consumption away from

traditional electricity and natural gas could achieve up to 58% of the targeted emission reduction goal. In combination with measures supporting alternative renewable energy installations (e.g. solar), this can be achieved by creating or joining a Community Choice Aggregation (CCA) program. CCA is a system enabled by State legislation, which allows cities and counties to aggregate the buying power of individual customers in order to secure alternative or renewable energy supplies.

Consideration of a CCA is a 2014 Study Issue for the Environmental Services Department. The cost associated with this study issues is $300,000 and would be a preface to a full feasibility study on CCA. Based on early research, a full feasibility study is expected to cost between $250,000 and $300,000. This funding is likely to be recoverable through user fees should the City proceed with implementing a CCA. If a CCA program is implemented some Big Ticket items could be deferred until it was determined that they are actually needed to reach the City's GHG reduction goal. These measures, although costly, could stay in the CAP toolkit while other measures are considered or implemented first. If following completion of a feasibility study a CCA program is established, Council could evaluate if other measures could be deleted and still meet the state recommended GHG emissions reduction goals while recognizing that many have other desirable community benefits.

New City Codes or Policies

There are 46 Action Items in this category. These Action Items are those that may require a change to the Municipal Code or to a Council Policy. Some items will require additional study, program design or even a study issue with significant outreach to the community or certain business groups.

About half of these Action Items (22) would require minimal costs or be under $1,000 to implement. The estimated cost for the remaining 24 Action Items would range from $5,000 to $50,000. The precise cost would depend on the type of study needed and the level of staff time required to complete the study. For instance, studies requiring significant public outreach would have higher costs and require more staff hours.

These code/policy changes and studies would likely be prioritized during the annual study issues process or during budget preparation and would be considered along with non-CAP priorities. Doing these studies would not necessarily result in additional costs because, if selected, they could be in lieu of other studies or tasks.

Education and Outreach

There are 25 Action Items in this cost analysis category. These Action Items are those that primarily consist of programs to educate the public or to outreach to the community to solicit involvement in a program. These Action Items may have an enforcement or incentive component.

Most of these programs would have a one-time cost or ongoing annual cost not exceeding $5,000 to $10,000. Several (approx. 5) education efforts are anticipated to have annual costs between $25,000 and $100,000.

Existing Codes and Policies

There are 11 Action Items in this cost analysis category. The Action Items consist of the continuation of a number of programs, codes, policies or practices. These Action Items typically have no anticipated extra costs. For example:

> LUP-1.5: Retain a residential parking permit program for residential areas adjacent to commercial areas of the City where parking is in higher demand.

Residential parking permit programs are already operated in the City on a cost recovery basis so there would be no additional costs for this CAP action. No additional study would be needed. This is a staff managed task.

Intergovernmental Coordination

There are ten Action Items in this cost analysis category. Intergovernmental coordination typically means the City would be joining with or advocating for other agencies or organizations to implement a program that helps reduce GHG emissions. Most of these Action Items are not high cost and primarily consist of staff hours for program coordination or time for communicating advocacy positions. The remaining items would range in cost from $5,000 to $25,000, with higher cost items involving more staff hours for implementation, preparation of materials and attendance at meetings. Costs could also include participation monitoring.

Traffic and transportation related Action Items would be coordinated through the Public Works Department where advocacy would be implemented with minimal additional staff costs. For other intergovernmental Action Items, additional staff hours might be needed to accomplish the participation and necessary follow up monitoring depending on the level of commitment directed by Council.

Change to Internal City Operations

There are 13 Action Items in this cost analysis category. This category consists of actions such as updating City documents and internal programs to reflect the CAP such as incorporating the concepts of adaptation into emergency preparedness plans or changing materials used in City sidewalk and street construction to a more sustainable product. This category is also a catch all for Action Items related to the way the City does business that did not exactly fit into another category.

Most of these Action Items are minimal cost to the City (below $5,000). The only higher cost Action Item would be to host special pedestrian and bicycle events if there is no grant or local business sponsor.

This category will require the City's Sustainability Coordinator to update and implement the City's plans to respond to climate adaptation when appropriate. Additional costs would be associated with participating in regional adaptation planning and implementation of some programs like the Urban Water Management Plan.

Monitoring Costs

The CAP includes Action Items that address monitoring as well as periodically updating the GHG inventory. Based on preliminary research, a monitoring tool would range from $15,000 to $50,000 depending on the level of sophistication and reporting desired. Monitoring requires the City to develop a systematic method to and track and report on the GHG reduction goals that are quantified in the CAP. Establishing a monitoring program will be one of the first implementation steps if the CAP is adopted. Regular monitoring will be required in order to be accountable for CEQA streamlining and to take advantage of potential grant funding for GHG emission reduction activities. Staff will return to Council with a recommendation on purchasing a monitoring program, which would be customized to measure performance of the 130 Action Items in the Sunnyvale CAP.

Impl'n Category	Measure ID	Activity ID	Activity Description
BT			**BIG TICKET ITEMS**
BT	CTO-1	CTO-1.4	Improve pedestrian safety and comfort through design elements such as landscaped medians, pedestrian level amenities, sidewalk improvements, and compliance with Americans with Disabilities Act (ADA) design standards, particularly for areas serving high volumes of traffic.
BT	CTO-1	CTO-1.5	Improve bicycle facilities and perceptions of comfort through pavement marking/coloring, physical separation specialized signs and markings, and other design elements.
BT	CTO-1	CTO-1.6	Require sidewalks to be a minimum of six feet wide in order to allow side by side walking at identified locations that currently serve high pedestrian traffic volumes, or locations planned to serve high pedestrian traffic.
BT	CTO-2	CTO-2.3	Increase awareness of the City's bicycle facilities by updating the City bicycle map to show locations of public and private bicycle parking, create a web-based application for members of the public to identify locations of private parking, and establishing information kiosks at key city locations to provide maps and highlight alternative modes of transportation.
BT	CTO-2	CTO-2.4	Fully fund the City's bicycle and pedestrian improvement plans for completion by 2035.
BT	CTO-2	CTO-2.5	Implement projects and programs to improve the safety of cyclists and pedestrians through increased enforcement of pedestrian right-of-way laws, removing crossing impediments, improving crossing time at signalized intersections for pedestrians and cyclists, requiring drive-through food establishments to serve bicyclists, and providing center refuge areas for pedestrians and bicyclists to pause when crossing arterials.
BT	CTO-3	CTO-3.1	Continue sponsoring projects to provide transit rider amenities at bus stops and rail stations.
BT	CTO-3	CTO-3.2	Work with the Valley Transportation Authority and neighboring jurisdictions to provide transit priority signal timing in order to decrease travel time.
BT	CTO-4	CTO-4.2	Create a Transportation Demand Management (TDM) program for City staff to promote alternative transportation modes and carpooling to the greatest extent possible.
BT	CTO-5	CTO-5.1	Support the creation of walking school bus programs in coordination with schools and parent organizations.
BT	EC-1	EC-1.1	Replace City-owned streetlights, park, and parking lot lighting with energy efficient lighting such as Light Emitting Diode (LED) or induction lights as technology becomes more affordable and return on investment is less than five years.
BT	EC-5	EC-5.1	Require new construction and major remodels to install interior real-time energy monitors.
BT	EP-1	EP-1.1	Create a Community Choice Aggregation (CCA) program for the City of Sunnyvale in order for the City to take control of power generation for its residents and businesses.
BT	LUP-1	LUP-1.1	Build and maintain an electronic parking management system for City-owned parking structures in the downtown and consider expanding to other City lots in Downtown and in proximity to other commercial areas.
BT	LUP-1	LUP-1.4	Establish parking meters throughout downtown Sunnyvale to optimize parking availability and reduce unnecessary vehicle circulation.
BT	LUP-1	LUP-1.6	Designate street parking stalls in the vicinity of key commercial and multi-family residential locations for efficient or alternatively fueled vehicles.
BT	LW-2	LW-2.2	Select materials to be targeted for diversion and diversion methods, services, or technologies based on the results of the Zero Waste Strategic Plan.
BT	OS-1	OS-1.1	Achieve and maintain an open space to population ratio of 5.5 acres per 1,000 residents.
BT	OS-3	OS-3.4	Expand existing park, open space, and boulevard tree inventory through the replacement of trees with greater number of trees when trees are removed due to disease, park development or other reasons.
BT	OVT-1	OVT-1.2	Secure funding to install electric vehicle recharging stations or other alternative fuel vehicle support infrastructure in existing public and private parking lots.
BT	OVT-1	OVT-1.4	Increase the number of efficient or alternatively fueled vehicles in the City fleet as vehicles are turned over.
BT	OVT-1	OVT-1.8	Accommodate neighborhood electric vehicles (NEVs) by providing infrastructure and regulations consistent with the California Vehicle Code and the Manual of Uniform Traffic Control Devices (MUTCD).
BT	OVT-3	OVT-3.1	OVT-3.2. Increase signal coordination as warranted to facilitate traffic flow along arterials and major collectors.

Impl'n Category	Measure ID	Activity ID	Activity Description
BT	WC-1	WC-1.2	Promote 'purple pipe' (reclaimed water) infrastructure in new construction or major renovation in preparation for a growing, usable network.
BT	WC-1	WC-1.3	Create a purple pipe network for citywide use of recycled water for irrigation and other outdoor purposes.
CO			**NEW CODES OR POLICIES**
CO	A-3	A-3.1	Analyze and disclose possible impacts of climate change on the project or plan area with an emphasis on sea level rise.
CO	A-3	A-3.2	Integrate climate change adaptation into future updates of the Zoning Code, Building Code, General Plan, and other related documents.
CO	CTO-1	CTO-1.1	Incorporate the provisions of AB 1358, the California Complete Streets Act of 2008, into all roadway design, construction and maintenance activities.
CO	CTO-1	CTO-1.3	Require new development to provide cross-parcel access and linkages from the development entrance to the public sidewalk system, transit stops, nearby employment and shopping centers, schools, parks, and other parcels for ease of pedestrian and cyclist access.
CO	CTO-1	CTO-1.7	Actively promote intermodal linkages to and from regional transit options by establishing or improving well-defined, convenient intermodal hubs in downtown and specific plan areas. Work with city planning and the Valley Transportation Authority (VTA), Peninsula Corridor Joint Powers Board (PCJPB), the Advisory Committee on Accessibility (ACA), and others to establish best places for these locations.
CO	CTO-2	CTO-2.1	Require public areas and new development to provide bicycle parking consistent with the Valley Transportation Authority (VTA) Bicycle Technical Guidelines, as amended.
CO	CTO-4	CTO-4.1	Require existing and future major employers to utilize a variety of Transportation Demand Management (TDM) measures including flexible work schedules, telecommuting, guaranteed rides home, low or no-cost transit passes, parking "cash-out" incentives, and other programs that connect employees with alternatives to single occupant commutes.
CO	EC-1	EC-1.3	Require new private parking lot lighting to use energy efficient lighting technologies.
CO	EC-2	EC-2.1	Evaluate and update the 2009 Zoning Code for Green Buildings for single-family, multi -family, and non-residential building construction and major remodels every three to five years consistent with upgrades to the California Green Building Standards Code (CALGreen).
CO	EC-3	EC-3.1	Establish a residential energy conservation ordinance that requires homeowners to perform and disclose energy and water audits at time of sale.
CO	EC-4	EC-4.1	Consistent with California AB 1103, require all nonresidential building owners to disclose building energy consumption and building energy ratings upon sale or lease of building
CO	EC-4	EC-4.3	Create an ordinance to facilitate energy efficiency improvements in non-residential buildings through incentives and regulations that may include energy performance reports, time of sale upgrades, and/or innovative partnershipsto reduce energy use.
CO	EC-6	EC-6.1	Require all new and resurfaced parking lots, sidewalks, and crosswalks to be made of materials with high reflectivity, such as concrete or reflective aggregate in paving materials.
CO	EC-6	EC-6.2	Require new multi-family buildings and re-roofing projects to install ***"cool"*** roofs consistent with the current California Green Building Code (CalGreen) standards for commercial and industrial buildings.
CO	EP-2	EP-2.1	Require new homes and businesses and major remodels to be 'solar ready' by pre-wiring for solar hot water heating and solar electricity.
CO	EP-2	EP-2.3	Prevent buildings and additions from shading more than 10% of roofs of other structures.
CO	EP-2	EP-2.5	Maintain incentives for alternative energy installations in new and existing development, including solar and small-scale wind turbines.
CO	LUP-1	LUP-1.2	Create maximum parking requirements and reduce minimum parking requirements for mixed-use development. Require parking lot sharing for mixed use or commercial development with complimentary hours of operation.
CO	LUP-1	LUP-1.3	Implement parking management tools for residential uses such as decreased or flexible standards, unbundled parking and shared parking plans.
CO	LUP-2	LUP-2.3	Facilitate the development of affordable housing near transit.
CO	LUP-2	LUP-2.4	Expand the zoning opportunities for the construction of accessory dwelling units in existing residential neighborhoods near transit as a means to increase affordable housing near transit.
CO	LUP-3	LUP-3.1	Amend the Zoning Code to allow small-scale, commercial urban farms to operate in residential areas.

Impl'n Category	Measure ID	Activity ID	Activity Description
CO	LUP-3	LUP-3.2	Ensure that every village core has opportunities for growing produce locally.
CO	LUP-3	LUP-3.3	Establish community gardens for public use.
CO	LUP-4	LUP-4.2	Review land-use plans and regulations and revise as needed to support additional live-work opportunities and home occupations, provided they are compatible with the existing neighborhood.
CO	LUP-5	LUP-5.1	Encourage the establishment and even distribution of neighborhood-serving facilities such as day care providers, banking/ATM locations, markets and drug stores in existing residential, commercial, and industrial areas in order to reduce the need for vehicle trips.
CO	LUP-5	LUP-5.2	Require new development to reduce the need for external trips by providing useful services/facilities on-site such as an ATM, vehicle refueling, shopping.
CO	LW-1	LW-1.1	Reduce the use of plastic bags at grocery stores and convenience stores in the community through incentives or requirements.
CO	LW-1	LW-1.3	Ban the use of expanded polystyrene (EPS) take-out containers at restaurants and fast food facilities.
CO	OR-1	OR-1.2	Require new buildings to provide electrical outlets on the exterior in an accessible location to charge electric-powered lawn and garden equipment.
CO	OR-2	OR-2.1	Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), or less. Clear signage will be provided at all access points to remind construction workers of idling restrictions.
CO	OR-2	OR-2.3	Planning and Building staff will work with project applicants to limit GHG emissions from construction equipment by selecting one of the following measures, at a minimum, as appropriate to the construction project: a. Substitute electrified or hybrid equipment for diesel- and gasoline-powered equipment where practical. b. Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel. c. Avoid the use on on-site generators by connecting to grid electricity or utilizing solar-powered equipment. d. Limit heavy-duty equipment idling time to a period of 3 minutes or less, exceeding CARB regulation minimum requirements of 5 minutes.
CO	OS-2	OS-2.1	Provide availability and access to outdoor space for recreation or social purposes, including access to public open spaces on privately owned property such as retail shopping centers
CO	OS-3	OS-3.2	Develop and implement canopy coverage requirements for City-owned parking lots, with exceptions for solar intallations.
CO	OS-3	OS-3.3	Promote tree planting on private property through incentive and support programs.
CO	OS-3	OS-3.5	Clarify codes and policies to maximize the preservation of the largest longest living trees and insure the expansion of the urban forest over time as appropriate for the site
CO	OVT-1	OVT-1.1	Designate preferred parking stalls for electric, hybrid and other alternative fuel vehicles in all public and private parking lots consistent with the California Green Building Code.
CO	OVT-1	OVT-1.3	Require sufficient electrical service in the garages/parking facilities of new residential development to support electric vehicle charging.
CO	OVT-1	OVT-1.6	Explore zoning or other incentives to encourage alternative fuel stations like biodiesel and compressed or liquefied natural gas in place of or in combination with traditional gasoline and diesel fueling stations.
CO	OVT-1	OVT-1.7	Facilitate new fueling stations that offer alternative fuels.
CO	OVT-2	OVT-2.2	Identify appropriate locations, and require facilities for car share vehicles in new parking garages, job, centers, commercial cores, neighborhoods, and transit hubs.
CO	WC-1	WC-1.1	Prepare a feasibility study to expand the City's current recylcled water program citywide and imporove the quality of recylced water to expand potential uses to industrial facilities or other applications.
CO	WC-1	WC-1.4	Create flexible provisions and encourage residents and businesses to collect rainwater to use for irrigation purposes.
CO	WC-2	WC-2.1	Require new development to reduce potable indoor water consumption by 30% (Tier 1 CALGreen) and outdoor landscaping water use by 40%.
CO	WC-2	WC-2.2	Revise development standards to ensure the use of greywater, recycled water, and rainwater catchment systems is allowed in all zones.
CO	WC-2	WC-2.3	Require new open space and street trees to be drought tolerant.

Impl'n Category	Measure ID	Activity ID	Activity Description
EO			**EDUCATION AND OUTREACH**
EO	A-4	A-4.1	Dedicate a page of the City's website to climate change and climate change adaptation.
EO	CA-1	CA-1.1	Create a structure or partner with other groups for volunteers, residents, and other organizations to help achieve Sunnyvale's sustainability goals.
EO	CA-1	CA-1.10	Use the City's Sustainability Commission and coordinator as a structure to coordinate with other groups for volunteers, residents, and other organizations to help achieve Sunnyvale's sustainability goals.
EO	CA-1	CA-1.11	Actively engage with Sunnyvale businesses to identify areas for GHG reduction and financial savings.
EO	CA-1	CA-1.2	Provide regular communication with schools, business, faith groups, community members and neighborhood groups to increase participation in the City's progress toward sustainability.
EO	CA-1	CA-1.3	Develop and encourage a mechanism for neighborhoods to share equipment and resources to improve sustainability.
EO	CA-1	CA-1.4	Provide a toolkit of resources, including web based efficiency calculators, for residents and businesses to analyze their greenhouse gas emissions in comparison to their neighborhood, the city, and the region.
EO	CA-1	CA-1.5	Develop and implement a competitive greenhouse gas reduction program between groups of citizens in the City with an award component.
EO	CA-1	CA-1.6	Use sustainability initiatives within City operations to educate the community of ways to achieve sustainability by example.
EO	CA-1	CA-1.7	Actively promote use of alternative modes of transportation as safe modes of travel. When applicable, promote on the City's web site and publications about viable programs sponsored by 511, the Air District and other recognized agencies.
EO	CA-1	CA-1.8	Through selected projects and efforts to improve City operations, demonstrate how sustainability efforts are possible and successful.
EO	CA-1	CA-1.9	Make comparison an intrinsic part of consumption . Bring awareness of how our consumption compares to other communities, regions, and others in our neighborhood.
EO	CA-2	CA-2.1	Recommend and advocate for schools to use the Air District curriculum or other for local school teachers to teach children about climate change, greenhouse gas emissions, and local actions.
EO	CA-2	CA-2.2	Continue to provide and improve the bicycle driver education program for elementary, middle, and high school students.
EO	CTO-2	CTO-2.2	Require secure bicycle parking at public and large private events.
EO	CTO-2	CTO-2.7	Support business efforts to plan and implement a bike-sharing program for major commercial and industrial areas.
EO	CTO-5	CTO-5.2	Encourage schools to link employees and guardians of students with an online system such as 511.org that provides carpool matching.
EO	CTO-5	CTO-5.3	Continue to implement a Safe Routes to School program for increased bicycle and pedestrian safety to and from schools.
EO	EC-4	EC-4.4	Identify businesses that are likely to be the largest consumers of energy within the city and target City outreach to these businesses.
EO	EC-5	EC-5.2	Connect businesses and residents with rebate programs that give priority to appliances with smart grid technology.
EO	EC-5	EC-5.3	Inform the community of metering options, such as online applications and in-home monitors.
EO	OR-2	OR-2.2	Construction equipment must be maintained per manufacturer's specifications
EO	OVT-1	OVT-1.5	Collaborate with taxi franchises to use low-emissions vehicles such as hybrids, compressed natural gas (CNG) vehicles, biodiesel vehicles, or electric vehicles.
EO	OVT-2	OVT-2.1	Work with car sharing companies such as Zipcar and City Car Share to increase the availability of car share programs in Sunnyvale.
EO	OVT-3	OVT-3.2	Educate and enforce idling restrictions associated with delivery trucks and school pick-ups and drop-offs.

Impl'n Category	Measure ID	Activity ID	Activity Description
IC			**INTERGOVERNMENTAL COORDINATION**
IC	A-1	A-1.1	Appoint a staff liaison to attend and participate in regional meetings focusing on adaptation and resilience and to report back to staff on a regular basis.
IC	CTO-3	CTO-3.3	Work with other agencies to provide High Occupancy Toll (HOT) lanes, and support expenditure of HOT lane revenue on projects that reduce vehicle miles traveled in Sunnyvale. Support regional congestion pricing measures.
IC	CTO-3	CTO-3.4	Advocate for transit service improvements by area transit providers consistent with established performance standards, with an emphasis on coordinating public transit schedules and connections and for subsidies for a higher level of transit service and/or more transit passes for residents and/or employees.
IC	CTO-3	CTO-3.5	Partner with GreenTRIP and other local or regional organizations to implement trip reduction programs in new residential, commercial, and mixed use developments.
IC	EC-1	EC-1.2	Participate in an illumination bank that provides loans for upfront cost of energy efficient lighting technologies to be paid back over 3-7 years.
IC	EC-3	EC-3.2	Participate in a Property Assessed Clean Energy (PACE) or similar financing program to offer low-interest loans to residents and businesses for energy efficiency upgrades.
IC	EC-4	EC-4.2	Participate in a Property Assessed Clean Energy (PACE) or similar financing program to offer low-interest loans to businesses for energy efficiency upgrades.
IC	EP-2	EP-2.2	Participate in a Property Assessed Clean Energy (PACE) or similar financing program to offer low-interest loans to residents and businesses for renewable energy installations.
IC	EP-2	EP-2.6	Advocate for the development of a regional or statewide Feed-In-Tariff that further encourages the development of mid-sized renewable energy installations.
IC	OR-1	OR-1.1	Partner with BAAQMD to re-establish a voluntary exchange program for residential electric lawnmowers and backpack-style leaf blowers.
IP			**INTERNAL OPERATION OR POLICY**
IP	A-2	A-2.1	Regularly train and inform the Department of Public Safety Office of Emergency Services (OES) on potential climate change risks and hazards.
IP	A-2	A-2.2	Update the City Emergency Plan and Emergency Preparedness Workbook to address climate change impacts.
IP	A-4	A-4.2	On a regular basis, assess adaptation efforts of the City, region, and state and identify goals or gaps to be addressed.
IP	CTO-1	CTO-1.2	Implement the street space allocation policy in coordination with road reconstruction or resurfacing projects to provide road configurations that accommodate all travel modes.
IP	CTO-2	CTO-2.6	Create at least one day a year when a portion of streets and plazas are designated for pedestrian and/or bicycle access only.
IP	CTO-4	CTO-4.4	Explore programs to encourage large employers to hire Sunnyvale residents.
IP	EC-3	EC-3.3	Prioritize non-general funds to assist low-income home owners achieve energy efficient improvements. Program annual Community Development Block Grant (CDBG) funds to fund weatherization programs.
IP	EC-6	EC-6.3	Commit to using a warm aggregate mix for all asphalt patching, overlay, and reconstruction.
IP	EC-6	EC-6.4	Consider the lifespan and embedded GHG content of pavement materials for public projects.
IP	LUP-3	LUP-3.4	Develop and implement a purchasing policy that requires food and other appropriate materials purchased by the City to be purchased from as local a supply as possible.
IP	LUP-4	LUP-4.1	Support the retention and expansion of local anchor and growth industries.
IP	LW-1	LW-1.2	Ban the sale or dispersal of disposable, single use plastic water bottles at public events permitted by the City.
IP	OR-1	OR-1.3	In project review, encourage the replacement of high-maintenance landscapes (like grass turf) with native vegetation to reduce the need for gas-powered lawn and garden equipment.
PO			**EXISTING CODE OR POLICY**
PO	LUP-1	LUP-1.5	Retain a residential parking permit program for residential areas adjacent to commercial areas of the City where parking is in higher demand.
PO	LW-2	LW-2.1	Require multi- family homes to participate in the City's Multi-family Recycling Program
PO	WC-2	WC-2.4	Implement the City's Urban Water Management Plan to facilitate a 20% reduction in per capita water use by 2020.

Impl'n Category	Measure ID	Activity ID	Activity Description
PO	CTO-4	CTO-4.3	Continue to provide density and other zoning incentives or procedural or financial incentives to developments for establishment of alternative transportation infrastructure within the private as well as adjacent public right-of-way, such as increased bicycle parking, separated sidewalks, bike lanes and signage, and change and shower facilities.
PO	EC-2	EC-2.2	Continue to require energy efficient siting of buildings. Buildings should be oriented and landscape material should be selected to provide maximum energy efficiency for the buildings.
PO	EC-2	EC-2.3	Continue to provide incentives for new construction and remodels to adhere to a higher green building standard than required by the City.
PO	EP-2	EP-2.4	Continue to allow and encourage solar facilities above paved parking areas.
PO	LUP-2	LUP-2.1	Continue to plan for most new residential, commercial and industrial developments in specific plan areas, near transit, and close to employment and activity centers.
PO	LUP-2	LUP-2.2	Continue to identify underutilized areas that can support higher density housing and mixed-use development.
PO	LUP-2	LUP-2.5	Continue to allow for the development of live/work spaces in commercial zoning districts and mixed-use residential zoning districts.
PO	OS-3	OS-3.1	Continue to implement the City's Tree Preservation requirements.

LEGEND

BT	**BIG TICKET**
CO	**NEW CODE OR POLICY**
EO	**EDUCATION AND OUTREACH**
IC	**INTERGOVERNMENTAL COORDINATION**
IP	**INTERNAL OPERATION OR POLICY**
PO	**EXISTING CODE OR POLICY**